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| 09/955,955 | 09/20/2001 | Hirofumi Yamagiwa | Q66339 | 9978 |

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| EXAMINER |
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LEE, ANDREW CHUNG CHEUNG

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| ART UNIT | PAPER NUMBER |
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2616

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/955,955

Applicant(s)

YAMAGIWA, HIROFUMI

Examiner

Andrew C. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-13 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-7, 9 and 10 is/are rejected.
- 7) ☒ Claim(s) 4, 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The Abstract of the Disclosure is objected to because of the following informalities: According to 37 CFR 1.72. Title and abstract.

(b) A brief abstract of the technical disclosure in the specification must commence on a separate sheet, preferably following the claims, under the heading "Abstract " or "Abstract of the Disclosure. " The sheet or sheets presenting the abstract may not include other parts of the application or other material. The abstract in an application filed under 35 U.S.C. 111 may not exceed 150 words in length.

The purpose of the abstract is to enable the United States Patent and Trademark Office and the public generally to determine quickly from a cursory inspection the nature and gist of the technical disclosure.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 recites the limitation "sending the multiplexed cells" in lines 13 – 14 of page 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 recites the limitation "sending the multiplexed cells" in lines 4 – 5 of page

4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 3, 5, 6, 7, 9, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishii et al. (US 6643524 B1) in view of Mizusawa et al. (US 5598402).

Regarding claims 1, 6, Ishii et al. disclose the limitation of a base station modulator/demodulator in a mobile communication system (recited "a mobile communication exchange connected through a communication lines to a public exchange network" as a base station modulator/demodulator in a mobile communication system; Fig. 4, column 6, lines 51 – 53) for sending data to a higher rank station and receiving data from the higher rank station (column 11, lines 1 – 2; lines 5 - 6; column 14, lines 4 – 8), said base station modulator/demodulator comprising: receive means for receiving the data from the higher rank station through a transmission line (private or shared communication line) and for terminating the data from the higher rank station that is addressed to a base station; (recited "transmission unit and processing the communication signal addressed to the base station in consideration and for transmitting from the base station in consideration the communication signal addressed to the base station controller" as receive means for receiving the data from the higher rank station through a leased line in a transmission line (private or shared

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communication line) and for terminating the data from the higher rank station that is addressed to a base station; column 8, lines 10 – 21); first send means for sending, the data received from the higher rank station through the transmission line (private or shared communication line), when the data is addressed to another base station to the another base station (recited “transmission unit terminating the shared communication line connected to the next base station” as first send means for sending, the data received from the higher rank station through the transmission line (private or shared communication line), when the data is addressed to another base station; column 13, lines 54 – 66; column 14, lines 1 – 3); and second send means for multiplexing data of a plurality of base stations, and sending the multiplexed cells to the higher rank station through the transmission line (private or shared communication line) (recited “the ATM cells is delivered through the cell multiplexing/demultiplexing portion and the transmission unit to the private transmission lines” as second send means for multiplexing data of a plurality of base stations, and sending the multiplexed cells to the higher rank station through the transmission line; column 14, lines 33 – 60). Ishii et al. do not disclose explicitly receiving the data from the higher rank station through a leased line in a leased line frame format. Mizusawa et al. disclose the limitation of receiving the data from the higher rank station through a leased line in a leased line frame format (recited “station A (as base station) and B (as higher rank station) each with multiplexer are connected to each other by a 6Mbps high speed digital leased line” as receiving the data from the higher rank station through a leased line in a leased line frame format; Fig.1, element 3, digital lease line, column 3, lines 18 – 20). It would have

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been obvious to one of ordinary skill in the art at the time the invention was made to modify Ishii et al. to include receiving the data from the higher rank station through a leased line in a leased line frame format such as that taught by Mizusawa et al. in order to provide a multiplexer with transmission line backup function (as suggested by Mizusawa et al., see column 1, lines 6 – 7).

Regarding claim 2, Ishii et al. disclose the limitation of the base station modulator/demodulator according to claimed wherein the receive means identifies, from data received from the higher rank station through the transmission (leased) line (column 8, lines 1 – 3; column 14, lines 4 – 8), data addressed to said base station based on a virtual path identifier in header data preset in the base station (recited “the base station as a destination is written in the VPI field of the cell header” as data addressed to said base station based on a virtual path identifier in header data; column 13, lines 64 – 66; column 14, lines 1 – 8), and the first send means identifies, from data received from the higher rank station through the transmission (leased) line (recited “extracts the communication signal cell addressed to the base station itself with reference to the address identifier” as the first send means identifies, from data received from the higher rank station; column 14, lines 14 – 18), data addressed to said another base station based on a virtual path identifier in header data preset in the another base station (recited “with reference to the address identifier of each base station written in the VCI field of the cell header, the ATM switch switches the uplink ATM cells to distribute the ATM cells” as data addressed to said another base station based on a

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virtual path identifier in header data preset in the another base station; column 14, lines 33 – 60). Ishii et al. do not disclose explicitly the base station modulator/demodulator according to claimed wherein the receive means identifies, from data received from the higher rank station through the leased line. Mizusawa et al. disclose the limitation of the base station modulator/demodulator according to claimed wherein the receive means identifies, from data received from the higher rank station through the leased line (recited “station A (as base station) and B (as higher rank station) each with multiplexer are connected to each other by a 6Mbps high speed digital leased line” as base station modulator/demodulator according to claimed wherein the receive means identifies, from data received from the higher rank station through the leased line; Fig. 1, element 3, digital lease line, column 3, lines 18 – 20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ishii et al. to include the base station modulator/demodulator according to claimed wherein the receive means identifies, from data received from the higher rank station through the leased line such as that taught by Mizusawa et al. in order to provide a multiplexer with transmission line backup function (as suggested by Mizusawa et al., see column 1, lines 6 – 7).

Regarding claims 3, 7, Ishii et al. disclose the limitation of the base station modulator/demodulator according to claimed which further comprises: discard means for discarding, among the data received by the receive means from the higher rank station through the transmission line (recited “header deletion/addition portion” as

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discard means for discarding, among the data received; column 5, lines 36 – 45; column 14, lines 33 – 41), data having a virtual path identifier different from the set value (recited “the header registering portion written in the VCI field is added” as data having a virtual path identifier different from the set value; column 14, lines 33 – 41); and insertion means for inserting an idol cell instead of the ATM cell discarded by the discard means (recited “the cell multiplexing/demultiplexing portion inserts a vacant cell “ as insertion means for inserting an idol cell; column 10, lines 43 – 51).

Regarding claims 5, 9, 10, Ishii et al. disclose the limitation of the base station modulator/demodulator according to claimed wherein the base station has the same processing function as the another base station (recited “other base stations connected to the shared communication line have a similar structure” as wherein the base station has the same processing function as the another base station; column 7, lines 64 – 67).

Allowable Subject Matter

5. Claim 11 is allowed over prior art.

The following is a statement of reasons for the indication of allowable subject matter: Regarding claim 11, the cited references, in single or in combination, do not disclose explicitly a master receive processor configured to receive the data from the higher rank station, determine whether the data from the higher rank station includes information destined for the base station, and terminate the data at the base station when the data from the higher rank station is determined to include information destined

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for the base station; and a slave receive processor configured to receive the data from the higher rank station, determine whether the data from the higher rank station includes information destined for another base station, and transmit, over the leased line, the data at the another base station when the data from the higher rank station is determined to include information destined for the another base station.

Additionally, all of the further limitations in claims 12, 13 are allowable since the claims are dependent upon the independent claim.

6. Claims 4, 8, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments with respect to claims 1 – 13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571) 272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ACL

Aug 09, 2006


RICKY Q. NGO
SUPERVISORY PATENT EXAMINER